

WHAT IS CLAIMED IS:

1. A blended product, comprising;

5 a) a first polymer reacted with a second polymer, said first polymer having thereon at least one carboxylic acid group or at least one anhydride of two carboxylic acid groups, or combinations thereof, terminal or pendant to said first polymer, or combinations thereof,

10 b) a second polymer comprising repeat units derived from at least one conjugated diene monomer having from 4 to 8 carbon atoms, or at least one vinyl aromatic monomer having from 8 to 20 carbon atoms, or combinations thereof, said second polymer being a reaction product of anionically polymerizing said monomer or monomers, and

15 said second polymer having at least one nitrogen containing terminal group being derived from the reaction of an imine with an anionic terminal repeat unit from polymerizing said second polymer.

20 2. A reaction product according to claim 1, wherein said at least one carboxylic acid group or said at least one anhydride, or combinations thereof, comprises succinic acid or succinic anhydride.

3. A reaction product according to claim 2, wherein said first polymer is a thermoplastic polymer.

25 4. A reaction product according to claim 2, wherein said first polymer is a poly(olefin) having at least 80 weight percent of the repeat units derived from the polymerization of one or more alpha-mono-olefin monomers having from 2 to 6 carbon atoms.

30 5. A reaction product according to claim 4, wherein at least 80 weight percent of the repeat units of said first polymer are derived from the polymerization of ethylene.

6. A reaction product according to claim 4, wherein at least

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80 weight percent of the repeat units of said first polymer are derived from the polymerization of propylene.

5 7. A reaction product according to claim 1, wherein at least 40 weight percent of said second polymer is derived from the polymerization of at least one conjugated diene monomer having from 4 to 8 carbon atoms.

10 8. A reaction product according to claim 4, wherein at least 40 weight percent of said second polymer is derived from the polymerization of at least one conjugated diene monomer having from 4 to 8 carbon atoms.

15 9. A reaction product according to claim 6, wherein at least 40 weight percent of said second polymer is derived from the polymerization of at least one conjugated diene monomer having from 4 to 8 carbon atoms.

20 10. A reaction product according to claim 1, wherein at least 80 weight percent of the first polymer is derived from the polymerization of propylene and/or ethylene, and said at least one carboxylic acid group or said at least one anhydride of said first polymer is derived from maleic acid or maleic anhydride, and

25 at least 50 weight percent of said second polymer is derived from the polymerization of at least one conjugated diene monomer having from 4 to 8 carbon atoms.

30 11. A reaction product according to claim 1, wherein said first polymer is an EPDM polymer or a polymer having at least 40 weight percent repeat units derived from at least one conjugated diene having from 4 to 8 carbon atoms.

12. A reaction product according to claim 11, wherein said

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second polymer is a polymer having at least 40 weight percent repeat units derived from at least one conjugated diene having from 4 to 8 carbon atoms.

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13. A reaction product according to claim 11, wherein said second polymer is a thermoplastic polymer.

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14. A reaction product according to claim 10, wherein said terminal nitrogen containing group is derived from *N*-butylidenebenzylamine.

15. A process for forming a compatibilized blend, comprising;

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a) providing a first polymer having at least one carboxylic acid functional group or at least one anhydride of two carboxylic acid groups, or a combination thereof, terminal or pendant to said first polymer, or combinations thereof,

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b) anionically polymerizing a second polymer from at least one conjugated diene monomer having from 4 to 8 carbon atoms or at least one vinyl aromatic monomer having from 8 to 20 carbon atoms, or combinations thereof, and functionalizing said second polymer by reacting a growing anionic end of said second polymer with an imine, thereby forming at least one amine containing terminal group on said polymer, and

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c) mixing and forming a compatibilized blend of said first polymer and said second polymer at a temperature above the softening temperature of said first and second polymers.

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16. A process according to claim 15, wherein said first polymer is reacted with said second polymer in a continuous or batch mechanical mixer at a temperature from about 100°C to about 240°C.

17. A process according to claim 16, wherein said at least one carboxylic acid group or said at least one anhydride of two carboxylic

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acid groups, or combination thereof, of said first polymer is derived from the reaction of maleic acid or maleic anhydride with a polymer, or the polymerization of maleic anhydride with at least one olefin monomer.

5                    18. A process according to claim 16, wherein at least 80 weight percent of said first polymer is repeat units derived from the polymerization of one or more alpha-mono-olefins having from 2 to 3 carbon atoms.

10                   19. A process according to claim 18, wherein at least 80 weight percent of said first polymer is repeat units derived from propylene.

15                   20. A process according to claim 19, wherein at least 40 weight percent of said second polymer is repeat units derived from the polymerization of at least one conjugated diene monomer having from 4 to 8 carbon atoms.

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